

ART. XIII.—*Descriptions of New or Little-known Polyzoa.*

PART XIV.

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(With Plates IX and X.)

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MENIPEA PORTERI, MCG., Pl. IX, Fig. 1.

I have received, from the Rev. Mr. Porter, a single small specimen gathered at Port Jackson, New South Wales, differing in some respects from those from South Australia, described and figured in Transactions of the Royal Society of that Colony, Vol. XII, p. 25. In most of the zoecia, the fornix is wanting, and in others is small and clavate. The marginal spines are also thicker, and none are furcate.

EUTHYRIS WOOSTERI, n. sp., Pl. IX, Fig. 2.

Zoarium lobed. Zoecia alternate in longitudinal series, elongated, rounded above; separated by narrow raised lines; surface hyaline, convex; mouth lofty, arched above, contracted at the lower third, the lower lip slightly hollowed; peristome thickened, especially in the lower lip. A large avicularium on one side of the mouth, broad above, with the triangular mandible produced into an acuminate process directed downwards. Posterior surface indistinctly marked with longitudinal grooves, and thickly covered with very narrow, transverse, parallel rows of minute elevations.

Cooktown, Queensland, Mr. W. H. Wooster.

This beautiful species, which I dedicate to its discoverer, to whom I am indebted for many valuable specimens and much information, is readily distinguished by the form of the mouth, the large lateral avicularia, and the peculiar marking of the posterior surface of the zoarium. I do not

know the exact form or size of the zoarium, as the only specimen I have seen is the small lobe figured, part of Mr. Wooster's single specimen.

The genus *Euthyris* was proposed by Mr. Hincks (Ann. and Mag. Nat. Hist., August 1882), for a species from Western Australia, which he named *E. obtecta*. The essential difference between it and *Flustra* and *Carbasea*, consists in its having a perfectly formed oral aperture, with the opercular flap attached by a distinct hinge, in the same manner as *Thairapora*, McG., differs from *Membranipora*. He referred to the same genus, the Australian *Carbasea episcopalis*, Busk, and *Flustra bombycina*, of Ellis and Solander, from Bahama. The former undoubtedly belongs to the genus, as also probably does the latter, so far as can be determined from the brief description and imperfect figure given. The South African *Carbasea bombycina* of Busk (Brit. Mus. Cat. Pol., p. 52, Pl. XLVIII, Figs. 4 to 7), which is certainly not the species of Ellis and Solander, differs essentially in having a true zoecial pore, similar to that of *Microporella*, and has properly in the Challenger Polyzoa (Pt. I, p. 104) been subsequently made by Busk the type of a new genus—*Onchoporella*. In that work, Busk suggests that his species and *Microporella diadema*, McG., may be dimorphic conditions of the same species, an opinion for which I cannot see any justification. Independently of the difference of colonial growth, a point of comparatively little consequence, the structure and appearance of the individual zoecia are quite different. In *O. bombycina*, they are very slightly calcareous; there are several perforations on each side in addition to the zoecial pore, and there are no oral spines or avicularia. In *M. diadema*, the zoecia are broader, not so convex, in most forms highly calcified, and the avicularia are constant and very characteristic.

MEMBRANIPORA SEJUNCTA, n. sp., Pl. X, Fig. 5.

Zoecia oval or elliptical, disjunct, connected by tubes irregular in number and arrangement; margin thickened, with about six stout spines on each side, incurving over the front, and nearly meeting in the central line. Avicularia elliptical, with triangular mandibles, situated above the zoecia in the connecting network of tubes.

Port Phillip Heads, Mr. J. Bracebridge Wilson.

Allied to *M. pyrula*, Hincks, from which it differs in the much smaller size and connection of the zoecia by tubes, in the same manner as occurs in *Chorizopora*. The spines also are more slender; the first pair are usually nearly erect. The avicularia, moreover, are different, being round or oval bodies, situated above, and distinct from the zoecia in the network of tubes by which these are connected.

BIFLUSTRA CORONATA, Hincks' sp., Pl. IX, Fig. 3.

Zoecia large, quadrate; margins thick, strongly granular, sloping to the aperture, which occupies greater part of the area; the upper edge smooth and slightly raised. An avicularium above each zoecium, directed obliquely or transversely.

Western Australia, Mr. Wooster.

I have only seen a single specimen, growing along with *B. savartii*. It does not seem to differ from that described by Hincks in Ann. and Mag. Nat. Hist., February 1881, from Singapore or the Phillipines. It may be identical with *Membranipora cyclops*, Busk, which I only know from the description and figure in the British Museum Catalogue.

BIFLUSTRA ACICULATA, n. sp., Pl. IX, Fig. 5.

Zoecia large, elongated, distinct, slightly straighter above, rounded below; margin thick, bevelled inwards, covered with fine-pointed granulations, and with a row of close very fine sharp denticles projecting inwards from the edge of the aperture.

Port Jackson, New South Wales, Rev. Mr. Porter.

BIFLUSTRA SAVARTII, Audouin, Var., Pl. IX, Fig. 6.

Mr. Wooster has sent me some specimens from Western Australia, which I think must be referred to this species. The zoecia are angular, rather broad, distinctly separated; aperture oval or elliptical, occupying about two-thirds of the length of the cell, deep; a thick granular lamina slopes downwards to the aperture, the edge of which also is denticulate. In some of the specimens there are numerous small avicularia between the zoecia.

Waters refers *B. delicatula* of Busk, and the zoology of Victoria, to this species, but although closely allied, as previously pointed out by Smitt in the Floridan Bryozoa,

the zoecia in that form are very much larger and more regular, and I think that on the whole they ought to be retained as distinct species.

MICROPORA ABYSSICOLA, Smitt sp., Pl. IX, Fig 4.

Zoarium encrusting. Zoecia large, more or less hexagonal, much depressed, separated by raised granular margins; surface granular; aperture (fully formed) arched above, straight below or slightly bulging upwards, with thickened margins, entirely occupied by the operculum. Avicularian cells interspersed among the others, smaller, with the anterior extremity sharply pointed; in the centre, a large somewhat elliptical aperture, covered by a thin membrane, and having articulated at its anterior end a very long setiform mandible, part of which is fringed by a membranous expansion on both sides.

North Western Australia, on pearl shell, Mr. W. H. Wooster.

This has already been described by Hincks (Ann. and Mag. Nat. Hist., February 1881), from Cuba, and considered as the Membraniporidan form of Smitt's *Vincularia abyssicola* (Floridan Bryozoa), an indication which I think is correct. In my specimen, however, the front of the cells is more depressed and more granular than in Smitt's and Hincks' figures. Smitt also describes a thick ectocyst. In one of the zoecia, where calcification is not complete, it will be seen that the opercular flap is distinct in the inner membrane, which is exposed for a short distance downwards.

The genus *Vincularia* is one which, so far as I can see, ought not to be retained. It contains a heterogeneous collection, chiefly fossil, of species agreeing only in the erect cylindrical mode of growth. The majority of the species ought to be referred to *Membranipora* or *Biflustra*. Among the tertiary Polyzoa of Victoria, species of *Membranipora*, *Biflustra*, *Cribrilina*, *Schizoporella*, and *Lepralia*, are remarkable for occurring in the *Vincularia* form, and in fact form a striking feature of that fauna.

LEPRALIA LATERALIS, n. sp., Pl. X, Fig. 3.

Zoarium encrusting. Zoecia very large, distinct, ovate, convex, surface tubercular and pitted, except in a narrow space below the mouth; mouth lofty, arched above, contracted at the lower third, peristome thickened and

smooth, especially on the lower lip. Oecium very small, rounded, pitted and tubercular. A transverse avicularium, with narrow spatulate mandible pointed inwards, about the middle of the zoecium on one side.

Nichol Bay, North Western Australia, Mr. W. H. Wooster.

LEPRALIA FEEGEENSIS, Busk, Pl. X, Figs. 1, 3.

I have two specimens of this species sent by Mr. Wooster from Nichol Bay, North Western Australia, one on pearl shell, the other on coral. In both, the zoecia are very large, distinct, separated by grooves, slightly convex, and marked with numerous minute granulations and perforations. The mouth is large, coarctate. In the one on shell, there is in most of the zoecia, at each upper angle, a sessile avicularium, with a long pointed triangular mandible directed directly inwards above the mouth. There are several oecia which are large, rounded, prominent, and marked similarly to the zoecia. In the other specimen, the zoecia are more irregularly disposed, and differ considerably in size. Many have an avicularium on one side of the mouth, close to the angle of zoecium, with the mandible much shorter and broader than in the other specimen, and directed upwards. The projection on each side of the mouth is also rather sharper.

Busk (*Challenger Polyzoa*, Pt. I, p. 144, Pl. XXII, Fig 9), describes the zoecia as being "completely immersed so as to form an almost level surface, oblong and rectangular, disposed in linear series, surface smooth, and very finely and obscurely punctured." They are figured, however, as separated by well-marked grooves. He also describes the oecia as inapparent, but does not figure them, and he figures the avicularia as much more slender than in Mr. Wooster's specimens. Busk's specimen was probably younger, and I have no doubt as to the identity of the species. In addition to the Feegee's, it is also recorded from Hong Kong.

SCHIZOPORELLA PULCHRA, n. sp., Pl. IX, Fig. 7.

Zoarium encrusting. Zoecia irregularly arranged, ovate or elongated, convex, granular, separated by distinct raised lines; mouth lofty, a wide deep rounded sinus, separated by a sharp angle on either side; peristome thickened. Occasionally round avicularia, with semicircular mandibles, on separate areas.

SCHIZOPORELLA INSIGNIS, Hincks, Pl. IX, Fig. 8.

Zoœcia ovate, distinct, hyaline ; a row of elevated puncta (occasionally perforations), traversed by a continuous narrow line, enclosing an area on the front, and extending along the margin above the mouth ; one or more similar marks on each side below the mouth ; on the front of the cell, in the centre of the circumscribed area, is a small white elevation ; mouth semicircular with a well-marked deep sinus in the lower lip, the entrance slightly narrowed. Oœcia large, globose, whitish.

Port Wakefield, South Australia, Mr. T. Smeaton.

This, one of the most beautiful species of the genus, has been previously described by Mr. Hincks (*Ann. and Mag. Nat. Hist.* August 1881), from South Africa. The markings are very peculiar. They are lenticular, divided in halves by a continuous narrow thread-like line ; they frequently become perforations. The Oœcium has not previously been described or figured.

SMITTIA OBSCURA, n. sp., Pl. X, Fig. 4.

Zoœcia confluent, indistinct, small, surface covered with perforations and tubercles ; mouth with a denticle supporting an avicularium with a rounded mandible. Oœcia globular, sub-immersed.

Lorne, Mr. W. H. Wooster.

I have only seen a single very small specimen forming a little tube, which has evidently surrounded a sponge or small branch of seaweed. The zoœcia are very indistinct ; the surface occupied by round foramina, among which are interspersed calcareous nodules. These nodules are more abundant about the mouth, the form of which they obscure. A small avicularium can, however, be seen on a rounded denticle on the lower lip. The oœcia are small, considerably immersed, without perforations or tubercles.

FASCICULIPORA LEVIS, n. sp.

Zoœcia very long, united in close bundles, or occasionally single ; orifice dimidiate ; surface smooth. Oœcia bullate enlargements at the bases of the fasciculi ; surface closely punctate.

Victoria, Rev. Mr. Porter.

